

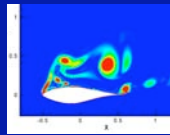


The Penn State Wind Energy Working Group

<http://www.PSIEE.psu.edu/WindEnergy/>

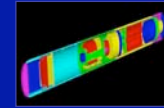
Aerospace Engineering / Rotorcraft Center

George Lesieutre	Structural dynamics, blade actuation
Mark Maughmer	Aerodynamics, flow control
Ken Brentner	Aeroacoustics simulation
Dennis McLaughlin	Noise measurements
Cengiz Camci	Small-scale wind turbines



Applied Research Laboratory

Susan Stewart	Wind energy systems, siting
Sue Ellen Haupt	Atmospheric modeling
John Merenich	Blade manufacturing and inspection
Suren Rao	Drivetrain technology
Jeff Banks	Condition monitoring
Michael Jonson	Acoustics

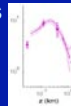


Penn State Research

- \$700M; 3,100 projects
- \$90M w/ industry (3rd)
- >1150 companies
- \$63M energy-related

Meteorology

George Young	Wind resource assessment
David Stauffer	Near-term predictions, micrositing
Ken Davis	Long-term BL measurements
Scott Richardson	Wind resource assessment



Electrical Engineering

Heath Hofmann	Electrical machines
Tim Kane	Remote atmospheric sensing



Energy and Mineral Engineering

Seth Blumsack	Energy policy and economics
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Smeal School of Business

Gerald Susman	Industry structure
Evelyn Thomchick	Supply chains
Dan Cahoy	Intellectual property

Mechanical Engineering

Jim Brasseur	Turbulence modeling, inflow
Tim Simpson	System design optimization
Laura Pauley	Computational fluid dynamics
Horacio Perez-Blanco	System modeling
Eric Marsh	Precision spindles



Engineering Science and Mechanics

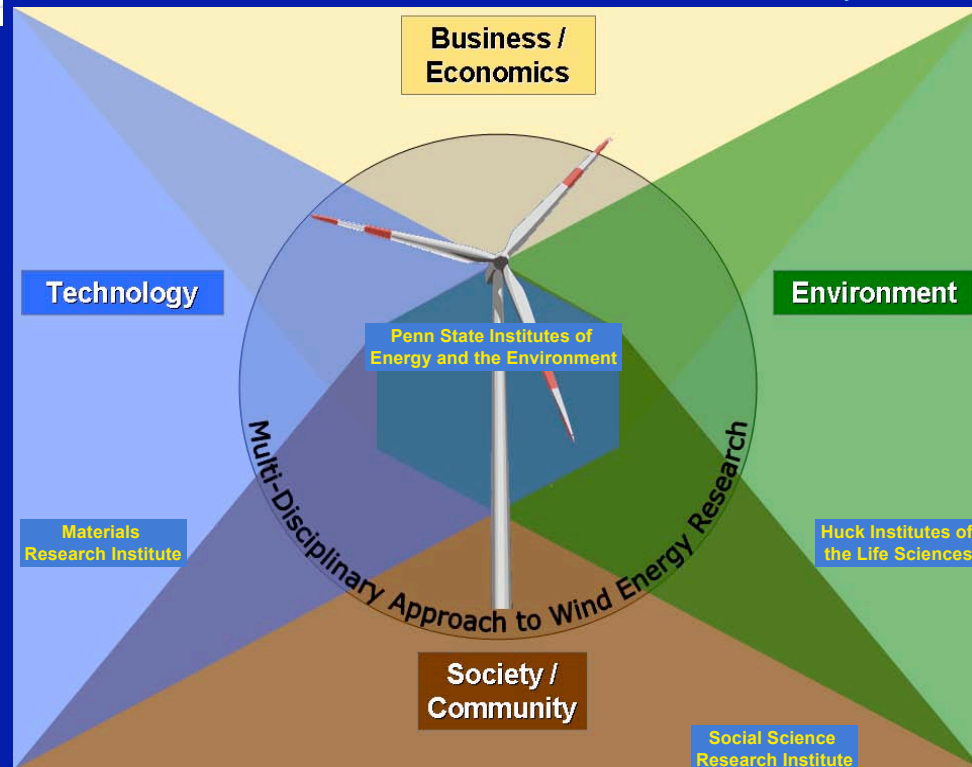
Chuck Bakis	Composite blades, flywheels
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Civil Engineering

Jeff Laman	Wind turbine tower structures
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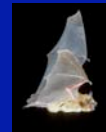
Wind Research Experience

- Feasibility of offshore wind in SE U.S.
- Remote sensing of winds
- Design of wind-turbine airfoils
- Wind-tunnel characterization of aerodynamic performance of airfoils, inc. separated flow
- Aero of WT blades w/ winglets
- Non-destructive testing of composite WT blades
- Bending fatigue evaluation of gears
- Modeling of turbulent boundary layer
- Computational aeroacoustics of WT
- Supply chain in Appalachia
- Workforce development in PA



Biology

Michael Gannon	Bat ecology
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Forest Resources

Richard Yahner	Environmental impacts
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Geography

Amy Glasmeier	Economic geography
Doug Miller	Environmental informatics

Rural Sociology

Leland Glenna	Community well-being
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Architectural Engineering / Center for Sustainability

David Riley	Sustainability
Jim Freihaut	Small-scale distributed generation

